

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
13 January 2005 (13.01.2005)

PCT

(10) International Publication Number
WO 2005/003030 A1

(51) International Patent Classification: C01B 33/107

(21) International Application Number:
PCT/NO2004/000186

(22) International Filing Date: 24 June 2004 (24.06.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
20033093 7 July 2003 (07.07.2003) NO

(71) Applicant (for all designated States except US): ELKEM ASA [NO/NO]; Hoffsvæien 65B, N-0377 Oslo (NO).

(72) Inventors; and

(75) Inventors/Applicants (for US only): HOEL, Jan-Otto [NO/NO]; Nordre Risvolltun 15H, 7036 Trondheim (NO). RONG, Harry, Morten [NO/NO]; Nærtrøa 19, 7089 Heimdal (NO). RØE, Torbjørn [NO/NO]; Baldersvei 5B, N-7033 Trondheim (NO). ØYE, Harald, Arnljot [NO/NO]; Steinhaugen 5 (NO).

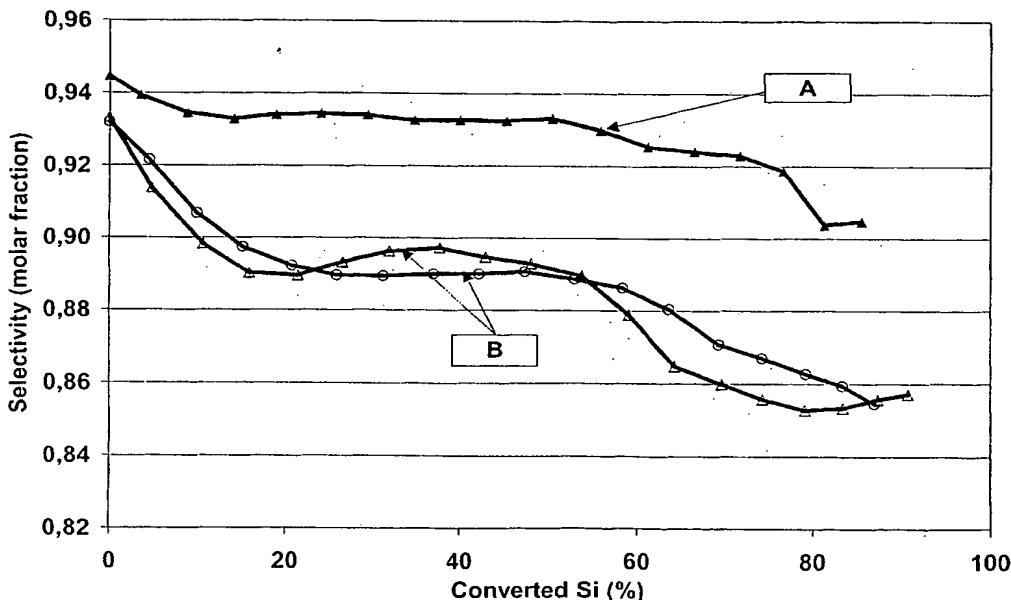
(74) Agent: VINDENES, Magne; Elkem ASA, Patent Department, P.O. Box 8040 Vågsbygd, N-4675 Kristiansand (NO).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: METHOD FOR PRODUCTION OF TRICHLOROSILANE AND SILICON FOR USE IN THE PRODUCTION OF TRICHLOROSILANE



WO 2005/003030 A1

(57) Abstract: The present invention relates to a method for the production of trichlorosilane by reaction of silicon with HCl gas at a temperature between 250° and 1100°C, and an absolute pressure of 0.5 - 30 atm in a fluidized bed reactor, in a stirred bed reactor or a solid bed reactor, where the silicon supplied to the reactor contains between 30 and 10.000 ppm chromium. The invention further relates to silicon for use in the production of trichlorosilane by reaction of silicon with HCl gas, containing between 30 and 10.000 ppm 10 chromium, the remaining except for normal impurities being silicon.

BEST AVAILABLE COPY



Published:

— *with international search report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

BEST AVAILABLE COPY